Algebraic Concepts
Lesson 23: Inverse Variation
Math for Standards

Name _____

Date _____

EQ: How is inverse variation used to solve problems?

Inverse variation is similar to direct variation. In direct variation, when one variable got larger, so did the other. In inverse variation, as one variable gets bigger, the other gets _____.

k is the constant of variation.

The equation for inverse variation is

To find *k*, choose a point in the given data and _____ one of the equations.

Example 1: The table shows a relationship between two variables. Is this an example of inverse variation? Find *k* and write an equation for the data.

a.

x	3	6	12	24
y	20	10	5	2.5

b.

x	100	50	25	12.5
y	2	4	8	16

Example 2: *y* varies inversely as *x* and $y = 5$ when $x = 85$. Write an equation for the relationship, then find *y* when $x = 17$.